

RANSOMWARE IN HEALTHCARE FACILITIES: THE FUTURE IS NOW

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INTRODUCTION

- What is ransomware?



INTRODUCTION

- How is it spread?



INTRODUCTION

Attacks: on individuals

Attacks: on organizations



INTRODUCTION

- How widespread is it?



INTRODUCTION



INTRODUCTION

- **Why healthcare facilities?**
 - EHRs
 - Criticality of information
 - Lack of funds spent on IT security

Results

- **The first documented case of hospital ransomware was at Surgeons of Lake County in 2012**
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- **A similar attack occurred two years later in 2014 at Clay County Hospital**
- **In both events, the extent of ransomware attack was not detailed; a ransom was believed to be paid in both cases, but the amounts were never disclosed**

Results

- **It was not until the highly publicized ransomware attack at Hollywood Presbyterian Medical Centre in February of 2016 that hackers actively began to target healthcare facilities**
 - staff was unable to access patient records, X-rays, and other equipment, or to restore equipment from backup data and was forced to pay the ransom
 - Initial reports claimed that a ransom of \$3.6 million was demanded, but was negotiated down to approximately \$17,000 or 40 bitcoins



Results

- **To pay or not to pay, that is the question**
 - **Paying a ransom, however, did not ensure that cybercriminals will provide the encryption key for the locked files**
 - **In the case of Kansas Heart Hospital, the ransom was paid, but the key was not provided**
 - **Instead, the cybercriminals demanded a second, larger ransom, which was not paid**



Results

- **What problems could arise as a result of a ransomware attack?**
 - Malpractice suit
 - Reputation loss and loss of future business
 - Cost and expense losses
 - Loss of patient PHI (HIPAA)!!!

Results

- **What should healthcare facilities take?**
 - **Disaster mitigation - Backup (offline, cloud, etc.)!**
 - **Unfortunately, backups are a “moment in time”**
 - **In the meantime, problems with paper**
 - **Risk mitigation - Prevention**
 - **Education of staff, docs, administration**

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WHERE LEADERS LOOK *forward*